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**ASSOCIATION
OF
THE CORPS OF GUIDES
CANADA**



SELECTED PAPERS

FROM

Lectures delivered at the Annual Meeting.

1913

**Authors are alone responsible for the views expressed in
their Papers.**

PAMPHLET

FILE:

328083

1913

**PRINTED FOR THE CORPS OF GUIDES ASSOCIATION,
CANADA,**

BY

R. J. TAYLOR, 134 QUEEN STREET, OTTAWA.



**ASSOCIATION
OF
THE CORPS OF GUIDES
CANADA**



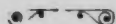
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**Minutes of the Seventh Annual Meeting of the Corps
of Guides' Association, held in the Senate Com-
mittee Rooms on Thursday, February 27th, 1913.**

Officers present:—Lieut.-Colonels Van Nostrand, Lordly, Burns. Majors Chambers, Mitchell, DeKam, Browne, Hesketh. Captains Palmer, Tyrrell, Goodwin, Stead, Gillies. Lieutenants J. W. Sifton, Goodspeed, Everall, Howland.

The proceedings opened at 11 a.m., with Lieut.-Col. A. J. Van Nostrand in the chair.

The minutes of the last regular meeting were read .

Moved by Lieut.-Colonel Burns, seconded by Captain Palmer, that they be confirmed.—Carried.

REPORT OF COMMITTEES.

The Secretary reported on the work done by the various associations, the Secretaries of which formed a body, and by their united efforts, single fare return for delegates, from all parts, was obtained from the Railways, and the necessary arrangements for the various dates of meetings were made.

Moved by Major DeKam, seconded by Major Mitchell, that this report be received and accepted.—Carried.

There were no proposals for membership in the Guides' Association.

Letters of regret were received from:—Lieut.-Colonels Addie and Lamb. Majors Connell, Caldwell (B.A.C.), Parsons, and O'Hara. Captains Barber and Wilgress. Lieutenants H. S. Ross, Greening, Wright, Tweedale.

The Treasurer, Major J. E. Browne, presented the financial statement, showing a credit balance of \$133.30.

Moved by Lieut. J. W. Sifton, seconded by Major Chambers, that the same be received.—Carried.

ELECTION OF OFFICERS.

The following officers were elected for the year 1913:—

HON. PRESIDENT—Lt.-Gen. Sir P. H. N. Lake, K.C.M.G.,
C.B. (Notified of re-election 5-3-13).

PRESIDENT—Major-General W. D. Otter, C.V.O., C.B.

VICE-PRESIDENT—The Officer Administering the Corps.

MEMBERS OF COMMITTEE—The Assistant-Director of
Military Intelligence and Officers Commanding
Detachments.

SECRETARY—Captain L. H. Sitwell, Assistant-Director of
Military Intelligence.

TREASURER—Major J. E. Browne.

Referring to the minutes of last year, Major Mitchell enquired what steps the Secretary had taken to obtain a refund from the Railway Passengers Associations respecting return fares.

The Secretary replied and his explanation was considered satisfactory.

Lieut.-Colonel George Paley, Officer Administering the Corps, addressed the meeting, and gave a resumé of the progress made during his tenure of office.

Particular attention was directed to the introduction of mounted companies and sections, regulations governing the Corps, equipment, functions and duties, Corps Reserve, promotions, and the innovation of training the officers of the Corps with the Permanent Force during the past two years. He stated that the Corps had made great progress in the past three years, and hoped that his successor in office would receive the support from all members that had been given to him.

Major Mitchell brought up the question of training the Corps Reserve, which was answered by Colonel Paley in accordance with the King's Regulations & Orders.

Major Mitchell brought up the question of officers being allowed to keep their saddlery at home and not in Divisional

Headquarters, which, after discussion, was referred to the regulations, it being pointed out that an officer's saddlery would be kept in better condition if kept under his immediate supervision.

It was moved by Lieut.-Colonel Lordly, seconded by Lieut.-Colonel Burns, that the officers present express their thanks to Lieut.-Colonel Paley for his review of the work done, and for the manner in which he has aided the Corps in every possible manner during his tenure of office as Administrator.—Carried.

The meeting adjourned for lunch at 12.45 p.m.

The meeting resumed business at 2.50 p.m., with a lecture by Captain C. A. Palmer, upon the subject of "Sustenance while on the March."

At the conclusion of this paper, Lieut.-Colonel Paley quoted figures from army tables showing the strength of foods, and compared flesh and vegetable diets.

Captain Tyrrell stated that the Eskimos were entirely flesh eaters and were noted for their endurance.

Lieut. Everall gave his experience in hot and cold countries and showed how, with training, it was possible to exist and work for from three to five days on water alone.

Major Chambers gave his experiences on a liquid diet.

Captain Gillies spoke from a lumberman's point of view, upon the amount of food given and needed by men and horses in the northern parts of Canada.

Major deKam moved, seconded by Major Browne, that a vote of thanks be tendered to Captain Palmer for his interesting and instructive paper.—Carried.

At 4.15 p.m., Lieut.-Colonel Lordly began a paper on "A Review of the Laws of Land Warfare," and whilst so engaged, the Hon. the Minister of Militia and Defence entered the room, and listened to the speaker.

As his time was much occupied, he requested the Chairman to suspend the reading for a few moments while he addressed the officers present, which being done, the Minister congratulated the Association upon the attendance, and stated that anything he could do for the benefit of the Corps of Guides, would be done.

He spoke upon the Intelligence generally and stated that the officers of the Corps should mingle with officers of other units more than they do, and give the benefit of their special knowledge and training to others in their commands.

The Minister having retired, Lieut.-Colonel Lordly proceeded with the reading of his paper, and upon conclusion of the same, Colonel Paley drew attention to the questions of Levee en masse, flags of truce, and the unfairness of certain weapons.

Lieut. Howland requested information regarding the leading of a small force through neutral territory, and the question led to a discussion on neutrality.

Moved by Major Browne, seconded by Major Hesketh, that a vote of thanks be given to Lieut.-Colonel Lordly for his able paper.—Carried.

Major Chambers announced that the room at present occupied would not be available on Friday morning.

The meeting adjourned for the day at 6. p.m.

FRIDAY, FEBRUARY 28TH, 1913.

The meeting resumed at 11.15 a.m., in the Russell House.

Owing to the inability of Lieut. W. B. Sifton to attend to read his paper, the Officer Administering the Corps requested that the order of business as stated on the programme be changed, which, being done, general business was proceeded with.

Major-General W. D. Otter, C.V.O., C.B., Honorary Colonel of the Corps of Guides, addressed the officers and stated that he was pleased to see such a good turn out. He said that he did not intend to make a speech, but would take part

in any discussions relating to general business, as from his service in the Canadian Militia, he could fully understand the points likely to be raised, and would give the benefit of his experience whenever asked to do so.

A discussion arose about the question of asking for Government grant, due to a remark made by the Hon. the Minister on the previous day. After a lengthy discussion upon the amount required and the purposes to which it was to be used for, it was moved by Major Chambers, seconded by Major Hesketh, that a deputation be appointed to wait upon the Hon. the Minister to suggest the necessity of an annual departmental grant of \$2,000.00 towards this Association to assist in defraying the cost of meetings, the publication of annual report, preparation and printing of papers and other matters, as the Headquarters Committee may deem necessary for the good of the Association.—Carried.

Lieut.-Colonel Burns brought up the question of officers having to pay duty upon uniform when ordered in England.

After discussion it was moved by Lieut.-Colonel Burns, seconded by Major Hesketh, that it is the opinion of this Association that military uniforms and articles of military equipment should be admitted free of duty, and that respectful representations to this effect be made to the Hon. the Minister of Militia in Council with the request that the matter be referred to the Hon. the Minister of Finance and the Hon. the Minister of Customs.—Carried.

RATE OF HORSE HIRE.

It was moved by Major deKam, seconded by Lieutenant Howland, that in conjunction with the other military Associations, a request be made to represent that the Guides' Association recommend that the rate of hire for horses be increasee to \$1.50 per diem.

It was shown in discussion that even by making a contract in Montreal and Toronto for a number of horses, the sum of \$1.50, if granted, would not pay the price charged by the livery keepers.

PRINTING ANNUAL REPORT AND PROCEEDINGS.

After discussion as to ways and means, it was moved by Major deKam, seconded by Major Hesketh, that the Headquarters Committee be authorized to publish such portions of the annual report and papers read as may be approved by the proper authorities and subject to funds being available for that purpose.—Carried.

UNIVERSAL TRAINING.

Two officers having been present at the Minister's Conference, and hearing some of the remarks made on this subject, the question of having the Guide's Association place on record its views on the subject, it was opened for discussion.

The following officers expressed their opinions:—Major-General W. D. Otter, C.V.O., C.B. (Honorary Colonel, Corps of Guides), Lieut.-Colonels G. Paley and Lordly, Majors Mitchell, Chambers and Richardson, and Captain Weekes. As a result it was moved by Captain Weekes, seconded by Major Mitchell, that it is in the opinion of the Corps of Guides' Association of Canada, compulsory universal military training should be adopted in the Dominion of Canada.—Carried unanimously.

DONATION FROM LIEUT. W. S. JOHNSON, OF \$300.

Moved by Major Mitchell, seconded by Major deKam, that this Association accepts, with thanks, this donation, and that the Secretary be instructed to convey the thanks of the Association to Lieut. W. S. Johnstone for his kindness.

The money to be deposited in the bank and the purposes for which it is to be expended to be decided by the Executive Committee.—Carried. (Sent 5-3-13).

The meeting adjourned for lunch at 1.30 p.m.

Business was resumed at 2.40 p.m.

Lieut. W. B. Sifton read a paper upon the training of Cavalry horses, and pointed out the relation of the Corps of Guides to the Cavalry. He drew attention to the Schools in

Europe, the methods adopted in training both men and horses.

In commenting upon this paper, Lieut.-Colonel Paley remarked that the systems in France and Germany were similar, but both nations arrive at a like result by different methods. The Lecturer had showed his inclination towards the French system, and the difference between it and the English system was pointed out and in all cases it was shown that the matter resolved itself into whether shock action as practiced in the German Cavalry, was as good as fire action adopted by other nations.

After discussing foreign methods it is necessary to come home to Canada, and it is shown that the country in the east is more adaptable to Mounted Infantry than to Cavalry. In any case it is necessary to find out not only what the horse can do if properly trained, but also the powers of his rider.

Major Mitchell made a few remarks upon the subject of training men and horses, which he attempted to carry out in the mounted section of the Guides last year.

Major-General Otter congratulated the writer upon his excellent paper, and regretted that riding and the use of horses generally is not as common as it used to be, which is a decided disadvantage to Canada. A man should know his horse and should be taught more than the horse, for the writer had stated that the German cavalry horses were so well trained that a regiment of horses could move in perfect line without any riders on their backs.

Lieut. Sifton commented upon some of the remarks made by Lieut.-Colonel Paley and Major-General Otter.

It was moved by Lieut.-Colonel Lordly, seconded by Lieut. Duchastel, that a vote of thanks be given to Lieut. Sifton for his excellent paper.—Carried.

GENERAL BUSINESS WAS RESUMED AT 4 P.M.

The question of Corps funds was brought up, and after a lot of discussion the question was finally ruled out of order, it being a Corps matter and not one for the Association to deal with.

Lieut.-Col. Lordly moved, seconded by Major Richardson, that this Association meeting be adjourned during pleasure, and that Lieut.-Colonel Van Nostrand preside, as senior officer present, at a meeting of Guides' Officers now about to be held.—Carried.

Moved by Major Richardson, seconded by Lieut.-Colonel Howland, that Captain Sitwell act as Secretary.—Carried.

The meeting of Guides' Officers being open, the question of forming a Guides' Mess was raised, it being pointed out that an Association had not the power to handle and dispose of regimental funds.

It was moved by Major Chambers, seconded by Lieut.-Colonel Burns, that it is desirable to organize a Corps of Guides' Mess, under the provisions of the King's Regulations and Orders for the Canadian Militia, paras 887 to 923, and any amendments thereto.—Carried.

The question of changing the Mess uniform, brought up at the last meeting, was discussed, and the Secretary communicated the result of the replies sent to a circular of the 13th November, showing that out of 88 officers, 58 had replied, of which 40 were not in favour of a change, and 18 desired it.

The matter was discussed at length by all officers present and a sample mess uniform submitted. General Otter pointed out that if the new mess kit was adopted, a new full dress would have to be adopted also, as the mess kit is on the foundation of the full dress, and not only would it be inadvisable and an expensive change to many officers, but he doubted whether the Militia Council would approve of changing the dress regulations.

It was finally moved by Major Chambers, seconded by Lieut. Howland, that the 4th Detachment in Montreal take up the matter of circulating the proposed uniform amongst the members of the Corps, and that each officer be requested to express his individual opinion to the Secretary for submission to the Officer Administering the Corps at the earliest possible date.—Carried. (Copy sent to H. R. L. 5-3-13.)

Moved by Lieut. Howland, seconded by Lieut. Duchastel, that this meeting of Guides' Officers be now adjourned, and

that the Guides' Association meeting resume business. — Carried.

The Guides' Association meeting re-opened at 6.15 p.m.

The Chairman then conveyed the thanks of the officers at present assembled, to the Executive Committee at Headquarters, for the work they had done in making this meeting a success, and also to the Secretary and the Treasurer for their services during the past year.—Carried.

Moved by Lieut. Howland, seconded by Captain Palmer, that this meeting be now closed.—Carried.

The meeting closed at 6.20 p.m.

The Seventh Annual Dinner of the Corps of Guides was held in the New Russell at 8.15 p.m., 28th February.

The following officers and guests were present:—Lieut.-Colonels Van Nostrand, Lordly, Burns. Majors Chambers, Hesketh, Mitchell, Browne, deKam, Richardson. Captains McClelland, Gillies, Stead, Palmer, Sherwood, Tyrrell, Goodwin, Weekes, Mercier. Lieuts. Everall, Lowry, Howland, J. A. Dansereau, Dubuc, Duchastel. Major-General C. J. Mackenzie, Major-General W. D. Otter, Lieut.-Col. G. Paley, Major Lipsett, G.S., Major W. B. Anderson, D.T.M., R.C.E.; Major A. C. Caldwell, R.C.E.; Major Ducharme, C.F.A., Major H. Kemmis Betty, A.A.G., Major W. Date, 17th D.Y.R.C.H., Captain Sitwell, A.D.M.I., Lieut. Black, C.O.C., Mr. J. Craig, and Mr. J. B. Challies.

Several officers called in after attending the Minister's Dinner in the Senate, including Colonel Walker and Colonel Kemmis, from Calgary, Major Munro, 5th P. L. D. G., Lieut.-Colonel Harrison, C.E., of Montreal.

A REVIEW OF THE LAWS OF LAND WARFARE.

BY

LT.-COL. H. R. LORDLY, C.E.,
Corps of Guides.

There is an old saying that all is fair in love and war, but we must conclude, after reading some of the acknowledged laws respecting warfare between civilized nations, that, if unfairness is permissible in love it is certainly not so in warfare.

The rules or laws of combat and warfare are based largely on custom, possibly beginning in the days of chivalry, and handed down by successive stages with the carrying on of great wars between nations. As the advance and improvement came in arms, so also did the usage change, and now there exists accepted laws respecting the use of such arms.

Certain forms of projectiles are prohibited: poisoning bullets or weapons—(spears or lances), is considered a crime and any method of inflicting injury where useless suffering is entailed is forbidden.

In the Peninsula campaign, the war was carried on by rules laid down by custom and usage as no Conventions had been held up to that time: so also in the war in the Crimea, half a century later, usage gradually grew into accepted laws and rules, and these, with the experiences gained in later wars, were acknowledged by the greater of the civilized nations as laws which were to govern future resorts to arms.

In 1864 the Geneva Convention considered questions relating to the Sick and Wounded.

In 1868 the Declaration of St. Petersburg renounced the use, in time of war, of explosive projectiles.

The next convention, attended by representatives of the great nations, was held in 1899, although several wars had occurred since the previous convention.

A second Geneva Convention was held in 1906, shortly after another great war had occurred, and the Sick and Wounded question was once more taken up.

In 1907 the Hague Convention met and studied all the important questions and many points in doubt were cleared up. Some decisions, however, were not unanimous and some agreements were only accepted with certain reservations by some of the Powers.

As the result of these various conventions which really moulded and put into shape various agreements made previously by pairs of nations, so to speak, that had been at war with each other, there now exists a code of International laws for carrying on of land warfare which can govern partially all of the formerly contentious questions.

One can understand that a complete treatise on the Laws of Land Warfare as carried on by civilized nations would be an extensive undertaking and require a very great amount of research in military history to substantiate many points brought out, but as each country has its written instructions for "Conduct in the Field," it is possible to compile a compendium on the subject that would prove of value to all concerned. Possibly the best work of this sort is that recently issued in London on Land Warfare, by a prominent military officer and a professor of International Law, viz.:—Col. J. E. Edmonds, C.B., R.E., and Prof. L. Oppenheim, LL.D.

The writer here has copied freely from this source as it is the most concise available.

In the order of sequence the laws respecting Land Warfare would be considered as follows:—

(a) The Declaration of War. (b) Treatment of Residents from the Enemy's Country. (c) The Armed Forces of the Belligerents. (d) The Means of Carrying on the Warfare, the latter to cover such subheads as the Arms and Projectiles to be used, the taking of prisoners: Right of interrogation: Disciplinary punishment and the execution of prisoners.

Next would come the Collecting of Information, Espionage and Treason.

Rules respecting Bombardments, Assaults, and Sieges.

- (g) Laws respecting the sick, wounded and dead.
- (h) Flags of truce, Armistices and Capitulations.
- (i) Occupation of an Enemy's country.
- (k) The punishment of war crimes.

- (l) The use and installation of Posts and Telegraphs.
- (m) Intelligence.

There are many sub-heads to the above, but it is the intention in this short paper to treat mainly on subjects bearing directly on the work of the Intelligence Officer, including such general information that every officer should know.

THE DECLARATION OF WAR.

It is well to understand the position of the ordinary citizen on the outbreak of war. On the declaration of war between two States, the British view is, that the subjects of one state become the enemies of the subjects of the other State. On the other hand, International Laws generally recognize that hostilities are confined to the armed forces of the States engaged. The only private citizens of one of the States thus engaged in war, who happened to be in the country of the other State, living or visiting, who would likely be molested or deprived of their liberty, would be any supposed to be in communication with, or supplying information to the authorities of their native State.

It is usual on the outbreak of war to warn subjects of the other State to depart and to give them safe passport out of the country.

By "An act of grace." they may be permitted to remain, but if they do, their conduct must be strictly neutral.

Sometimes, as in the case of Port Arthur, in the Jap-Russo War, all foreigners were first ordered to depart, although eventually some few Germans who had commercial interests were allowed to remain. During the Crimean War, Russian subjects living both in Great Britain and France were allowed to remain in these countries, but at that time their presence probably made little difference. It is doubtful even if it would to-day, when we consider the strict censorship that would be maintained over the posts and telegraphs. On the other hand, British subjects who were living in several Russian seaports were expelled from those ports.

In the case of adjoining states at war, such as France and Germany, it is likely now that all citizens would be warned to return to their own States, although in a former contest

this was not done at the start of hostilities. There are many reasons though, unless such citizens could be absolutely isolated, why they should return to their own country. It relieves the Government on each side of the protection of the enemy's subjects.

In the Convention of 1907, under the heading of Belligerents, Section 1, Chap. 1, Art. 1, it is stated:—

The laws, rights, and duties of war apply not only to the army, but also to militia and volunteer corps fulfilling all the following conditions:—

- (1) They must be commanded by a person responsible for his subordinates:
- (2) They must have a fixed distinctive sign recognizable at a distance.
- (3) They must carry arms openly: and
- (4) They must conduct their operations in accordance with the laws and customs of war.

In countries where militia or volunteer corps constitute the army, or form part of it, they are included under the denomination "army."

Art. 2 of the same says:—

The inhabitants of a territory not under occupation, who, on the approach of the enemy, spontaneously take up arms to resist the invading troops without having had time to organize in accordance with Article 1, shall be regarded as belligerents if **THEY CARRY ARMS OPENLY**, and if they respect the laws and customs of war.

Art. 3:—

The armed forces of the belligerents may consist of combatants and non-combatants. In the case of capture by the enemy, both have the right to be treated as prisoners of war.

The important point to be considered here is item 2, in which it is stated that "they must have a fixed distinctive sign recognizable at a distance."

This item has been the cause of considerable discussion and from the standpoint of one engaged in gaining Intelligence it is necessary to consider just what a distinctive sign may mean.

If each individual were dressed in a complete uniform--differing from the enemy's uniform--the difficulty would be solved but a contingency must be provided against for those who possibly could not be so provided.

A man cannot be a combatant and a non-combatant at the same time. He cannot be a combatant during a fight and claim the rights of a non-combatant after the fight, particularly if he is caught. Therefore for his own self-preservation he requires a recognized distinctive badge if he is not attired in a recognized uniform.

In 1870 the Germans issued a notice that "Every prisoner who claims to be treated as a prisoner of war must prove his status as a French soldier by the production of an order issued by a competent authority and addressed to himself showing that he has been summoned to the colours and is borne on the rolls of a military unit raised by the French Government."

It will be remembered in the Peninsula War that Guerillas--bands of self organized troops--were the cause of much trouble on both sides. Today such bands would not be recognized unless they proved that they had state authorization, in which case they would be considered irregular troops. It is laid down that "Irregular combatants must carry arms openly." If it is found that their sole arm is a pistol, dagger, or a hand grenade concealed about their person: a sword, cane or some other similar weapon, or that they have concealed their arms on the approach of the enemy, they may therefore be refused the rights of the armed forces and may be treated accordingly.

In the Peninsula war the Spanish troops so badly treated the Basque peasants that they armed and commenced a partisan warfare.

Wellington issued a manifesto calling on them to either join the French standard openly or remain in peace at home, threatening that if the order were not obeyed, that their villages would be fired and such as were taken in arms would be hanged as banditti. The trouble immediately ceased.

That peaceful inhabitants should be easily distinguished from combatants is desirable, and whatever the distinctive sign may be it should be easily seen by the naked eye at a long distance.

Every Intelligence Officer should therefore know of any special characteristics that would distinguish the non-combatant from an enemy and govern himself accordingly.

Cases are cited in the Jap.-Russo War where irregular combatants were taken prisoners by the Japs and were eventually shot. It is not known, or clear, if this was for a violation of any of the rules cited above, except in one case, viz.: "25 inhabitants of a penal colony who were found carrying arms while wearing no distinctive dress or uniform. In this case they were not treated as inhabitants defending their hearths and homes, but as convicts and vagabonds ignorant of the laws of war."—(Oppenheim).

It is likely that a State employing volunteers as combatants would inform the opposing State of the distinctive marks to be worn by such troops. This was done in one case by the Russians in their late war in connection with the volunteer forces in Saghalien.

LEVÉE EN MASSE.—There is but one exception where the above rules are exempted. This is where the inhabitants of a country, not under occupation, take up arms spontaneously for the protection of their homes, without having time for the customary organization as to distinctive uniforms, responsible commanders, &c.

This is called the "Levée en Masse." These belligerents, as they now become, must, however, bear arms openly and conduct their operations according to the laws and customs of war.

According to the Hague Rules, 2, this does not apply to citizens living in a country already occupied by an enemy as the clause says, "The inhabitants of a country not under occupation, &c."

It would appear from various cases cited that the above rules are, or have been, usually generously interpreted, as it is recognized that "The first duty of a citizen is to defend his country, and provided he does so loyally he should not be treated as a marauder or a criminal." "Oppenheim."

THE MEANS OF CARRYING ON WAR.

There is much to be studied under this heading, and an Intelligence Officer, engaged well to the front and in an

enemy's country, should understand offhand the limitations as prescribed by usage and Conventions.

It has already been stated that explosive bullets and poisoned or jagged weapons are prohibited. This was the outcome of the Agreement of St. Petersburg in 1868 and signed by eighteen different nations.

The agreement of 1899 was signed by twenty-six nations, or countries, including Nicaragua and Mexico. The agreement of 1907 was signed by plenipotentiaries of twenty-seven States, including the United States and Great Britain.

The contamination of water supplies is prohibited by unwritten laws among civilized nations, but the deviation of a water course or a water supply is permissible.

Train-wrecking and damaging transportation systems is legitimate when carried on by members of the armed forces.

The following clauses are quoted from the Convention of October, 1907:—

Art. 22.—“Belligerents have not an unlimited right as to the choice of means of injuring the enemy.”

Art 23.—In addition to the prohibitions provided by special Conventions, it is particularly forbidden:—

- (a) To employ poisoned weapons.
- (b) To kill or wound by treachery, individuals belonging to the hostile nation or army:
- (c) To kill or wound an enemy who, having laid down his arms, or no longer having means of defence, has surrendered at discretion.
- *(d) To declare that no quarter will be given.
- (e) To employ arms, projectiles, or materials calculated to cause unnecessary suffering.
- (f) To make improper use of a flag of truce, of the national flag, or of the military insignia and uniform of the enemy as well as the distinctive signs of the Geneva Convention. (The latter is the Red Cross).

*Example.—The recent Revolutionary War in Mexico.

- †(g) To destroy or seize any property, unless such destruction or seizure be imperatively demanded by the necessities of war.
- (h) To declare abolished, suspended, or inadmissible, the right of the subjects of the hostile party to institute legal proceedings.

It will be seen from the above that the permissible means of carrying on warfare, on land, are quite limited.

It is a fact that in nearly all wars, as in professional and sometimes amateur athletic contests, claims have been made of the violation of unwritten or accepted rules. It is stated though, that such charges, when proven, have turned out to be the work of subordinates who have acted through ignorance and intentional cases; be it said to the credit of all, these have been few and far between.

EXPLOSIVES THROWN FROM BALLOONS.

A clipping from the news columns of a daily paper says:—
 "A French Scientist claims to have invented an apparatus so small and simple that it can be carried in a soldier's knapsack, and that will provoke disturbance of the air sufficient to cause any type of aeroplane to capsize even at a height of 9,000 feet.

If his invention is as good as his claim it should be a welcome addition to the equipment to the fighter on foot; for, by setting the disturber to work the infantryman will be able to slay the enemy above who is trying to murder him and his fellows by dropping bombs on him." The writer of the above forgot to add that "the infantryman in thus getting rid speedily of his overhead antagonist may cause the death of fifty or even 100 of his own compatriots by the descent of a machine full of bombs in a place not originally intended."

The above was evidently written for European readers. (1913).

The Convention of 1907 passed regulations respecting the Discharge of projectiles and Explosives from Balloons, but this agreement was not signed by either France or Germany.

†A case cited in the Japan-Russo War where after the Battle of Sha Ho, the Japanese soldiers compelled the Russian prisoners to give up their good boots in exchange for their worn-out ones.

The agreement is as follows:—

“The contracting parties agreed to prohibit, for a period extending to the close of the Third Peace Conference, the discharge of projectiles and explosives from balloons or by other new methods of a similar nature.

The present Declaration is only binding on the Contracting Powers in case of war between two or more of them.

It shall cease to be binding from the moment when, in a war between the Contracting Powers, one of the belligerents is joined by a non-Contracting Power.”

This was signed by representatives of Great Britain, United States, China, Portugal and some of the South American Republics.

Up to the present (1913), none of the highly armed Powers of Europe have signed. Possibly some day they may see fit to follow the example set by Great Britain and the United States in agreeing to prohibit such methods of destruction in land warfare at least.

At sea the results would be different.

We now come to the laws respecting the collecting of Information, under which may be considered Espionage and Treason.

INFORMATION FROM PRISONERS.

Art. 9 in the Annex to the Convention of 1907, says:—

“Every prisoner of war is bound to give, if questioned on the subject, his true name and rank, and if he infringes this rule, he is liable to have the advantages given to prisoners of his class curtailed.”

It is permissible to use every reasonable method of persuasion to induce a prisoner to give information respecting his own troops, their numbers, location, &c., but he cannot be punished for refusing to reply to the questions imposed on him.

The obtaining of information is generally done by diplomatic means and indirect questioning, and if he answers freely it must be decided upon how far his answers may be believed. This requires a certain degree of knowledge res-

pecting the characteristics of the prisoner's race to decide the chances of his telling the truth or if he is prevaricating.

We know from history that the ancient Greeks were not known for their complete truthfulness, in time of war: the Scandinavians were known to be truthful, in any case, but the Mohammedans on the contrary admit that it is permissible to lie in warfare or to save from death.

Therefore, in dealing with the latter it may be adopted as an axiom that they are not telling the truth, and to govern one's method of questioning accordingly. There are portions of certain States in Europe where the inhabitants are so accomplished that it is said they "can lie by note," in which case the matter of getting information might be more perplexing than difficult.

Art. 4, Chapt. 2, of the Convention of 1907, says:—

"Prisoners of war are in the power of the hostile Government, but not of the individual or corps who capture them.

They must be humanely treated.

"All their personal belongings, except arms, horses, and military papers, remain their property."

Art. 5.—"Prisoners of war may be interned in a town, fortress, camp, or other place, and are bound not to go beyond certain fixed limits; BUT THEY CANNOT BE PLACED IN CONFINEMENT, except as an indispensable measure of safety, and only while the circumstances which necessitate the measure continue to exist."

Here it might not be out of place to remark, as a matter of information, that the great Civil War in the United States between the North and the South was not fought on any such laws or rules as have just been mentioned above. The first Convention was held after that war. With them all prisoners were apparently confined.

Art. 5 above would not permit a prisoner to be confined if he refused to answer questions. On the other hand he may be searched and military papers taken from him as is provided in Art. 4.

ESPIONAGE. (CLOSE WATCH: SPYING).

Art. 2 of the last Convention says:—

“Ruses of war and the employment of measures necessary for obtaining information about the enemy and the country are permissible.”

Prof. Oppenheim says, “The collection of information openly by combatants in a distinguishable uniform is a recognized branch of the art of war, and it can be provided against by firing on the persons engaged in it or taking them prisoners. The acquirement of information by secret methods is controlled by laws of war which require some consideration.”

“It is lawful to employ spies and secret agents, and even to gain over by bribery or other means enemy soldiers or private enemy subjects. Yet the fact that these methods are lawful does not prevent the punishment, under certain conditions, of the individuals who are engaged in procuring intelligence in other than an open manner as combatants. Custom admits their punishment by death, although a more lenient penalty may be inflicted.”

Art. 29, Chap. 2, of the Hague Convention says:—

“A person can only be considered a spy when, acting clandestinely or on false pretences, he obtains, or endeavours to obtain, information in the zone of operations of a belligerent, with the intention of communicating it to the hostile party.

Accordingly, soldiers not wearing a disguise who have penetrated into the zone of operations of the hostile army for the purpose of obtaining information are not considered spies.

Similarly, the following are not considered spies: Soldiers and civilians entrusted with the delivery of despatches intended either for their own army or for the enemy's army, and carrying out their mission openly.

To this class likewise belong persons sent in balloons for the purpose of carrying despatches and, generally, of maintaining communications between the different parts of an army or a territory.

Art. 30.—“A spy taken in the act shall not be punished without previous trial.

Art. 31.—“A spy who, after rejoining the army to which he belongs, is subsequently captured by the enemy, is treated as a prisoner of war, and incurs no responsibility for his previous acts as a spy.”

It would appear from a close study of the above rules that anyone engaged openly in obtaining information, and dressed in the uniform of his army, would not be considered a spy; on the other hand an officer or a soldier who is dressed as a civilian, or who is attired in the uniform of the enemy, if caught, is apt to be treated as a spy unless he can show that he was not engaged in obtaining military information.

Prof. Oppenheim says that “The fact that a person acting as a spy is in the naval or military service of his State, does not screen him from punishment should he be apprehended by the enemy. Nor does the fact that he is in uniform make it impossible for him to be a spy.”

For instance, a soldier admitted to the enemy's lines under a flag of truce, or under the cover of the Red Cross, might take advantage of this opportunity to obtain information.

As a rule though, men admitted under the above circumstances, are only allowed so far without being blindfolded. In fact history is full of such cases, and it is doubtless a good thing for all concerned that such precautions have been taken.

The Rules do not appear to cover cases where the inhabitants of an invaded country attempt to give information respecting the enemy.

Such persons would probably be charged with War Treason, which does not appear to be mentioned in the Hague Rules at all, but is governed by former usage and custom.

When one belligerent takes possession of the enemy's territory, it is usual to issue a proclamation to the effect that anyone furnishing information to the enemy—to the native's former sovereign, or other State—will be guilty of treason and will be punished with death.

There is nothing to show, however, that this proclamation is, or has been, always considered necessary, and usually anyone caught in such an act knows about what the outcome may be. Unfortunately history is full of many sad cases

where it is doubtful if the unfortunate caught has accomplished enough to merit death. The one excuse though has remained, viz.:—as an example to others not to do likewise.

It is also pointed out by a recent writer, that "Assisting or favouring Espionage, or treason, and knowingly concealing a spy may be made the subject of charges: such acts are by the customary laws of war equally punishable.

"Neither sex nor age afford any immunity from the operation of the laws with regard to espionage and treason."

Many cases from the various campaigns might be cited in respect to the treatment of spies, but this one subject seems to be so well founded on unwritten laws that nothing can be added to it in a paper such as is intended here.

A striking example of War Treason is cited in Col. Atwell Lake's Defense of Kars. In some unimportant engagements with the Russians, certain Turkish officers were apparently—captured.

These officers afterwards became very active, in their captivity, on behalf of Russian interests, thus proving that their capture was more by design than accident. This may have been a case where Russian Intelligence Officers had been using gold to advantage.

ARMISTICES.

Chapter V. of the Convention covers the details respecting Armistices, and a study of the clauses of the agreement is necessary before its limitations can be seen.

Art. 36.—An armistice suspends military operations by mutual agreement between the belligerent parties.

If its duration is not defined, the belligerent parties may resume operations at any time, provided always that the enemy is warned within the time agreed upon, in accordance with the terms of the armistice.

Art. 37.—An armistice may be general or local. The first suspends the entire military operations of the belligerent States; the second between certain portions of the belligerent armies only and within a fixed zone.

Art. 38.—An armistice must be notified officially and in good time to the competent authorities and to the troops.

Hostilities are suspended immediately after the notification, or at the time fixed.

Art. 39. It rests with the contracting parties to settle, in the terms of the armistice, the relations which may be allowed in the theatre of war, with and between the civil populations.

Art. 40.—Any serious violation of the armistice by one of the parties gives the other party the right of denouncing it, even, in cases of urgency, of recommencing hostilities immediately.

Art 41.—A violation of the terms of the armistice by individuals acting on their own initiative only entitles the injured party to demand the punishment of the offenders and, if there is occasion for it, compensation for the losses sustained.

It will be seen from the above articles that the rules only provide certain regulations for respecting the termination and violation of an Armistice. Also if the agreement is a general or a local one, for the suspension of military operations. The relations which may be allowed in the theatre of war rests with the contracting parties.

Art. 37 provides for a general or local cessation of hostilities, thus showing the distinction whether the armistice is whole or a partial one.

The latter may be termed a suspension of arms between two minor portions of the Belligerents for specific purposes, such as succoring the wounded or burying the dead.

In the Crimean, and other campaigns, the latter was quite frequent.

"General Armistices are of a combined political and military character. They usually precede the negotiations for peace, but may be concluded for other purposes." As a recent example, the suspension of hostilities in the Balkan War, in order to permit of the holding of a Peace Proposal Convention.

What can be done during an Armistice by the belligerents in the way of renewed preparations seems to be largely a question of conscience, or how far they can go without being caught. The following instances are cited:—

In 1813, during the armistice which was to expire on August 17th, Blucher learned that the enemy had entered the neutral zone and that requisitions were being carried out in it. On the 18th of August, he considered himself absolved from further continuing the armistice and ordered his troops to advance that evening.

In a more recent war, Japan and Russia, during the battle of Mukden, a group of Russians bearing a Red Cross and a white flag, advanced towards the Japanese army and asked for a suspension of arms for several hours to remove the wounded and dead. Their request was agreed to, but the suspension was made without any defined agreement.

In the evening when the Japanese had reopened fire they were surprised at getting no return, and it was then found that the Russians had retired during the armistice. A Russian authority claims this to have been a legitimate ruse but agrees that it was "unprecedented."

However, the most recent case is that of the activity of the Turks during the recent armistice to discuss peace proposals. A press clipping states as follows:—

"During the long armistice between Turkey and the Balkan States, Turkey appears by developments to have concentrated her energy on rushing troops across from Asia Minor to Turkey in Europe. The landing chosen for those troops was not plague stricken, mutinous Constantinople, as was commonly reasoned it would be, but across the Hellespont to Gallipoli. On to this peninsula, a hundred and fifty square miles in area, a hundred and twenty miles southwest of Constantinople, and almost directly south of Turkey's other besieged city, Adrianople, a force estimated at seventy thousand men was landed. This was the strategic move of Nazim Pasha, completed just before his death. It was done with unusual secrecy, so far as the outside world was concerned."

Prof. Oppenheim says: "As it is impossible to check what goes on within the enemy's territory behind his lines, it is useless to impose elaborate conditions, the execution of which cannot be verified."

There is nothing to show that the collection of information and espionage cannot be continued during an armistice, and

perhaps in the case last cited had the Balkans been better posted the projected move would have been discovered and the Peace Proposals immediately brought to an end as a consequence.

Here is another point to be watched by the student of military history, viz.:—If the final result at Adrianople proves commensurate in value to the loss of prestige due to the above act. Perhaps the Turk has no prestige.

The subjects under the headings of Capitulations, Passports, Safe-Conducts: Occupations, Treatment of Enemy's Property, will be passed over here as not directly bearing on the object of this paper.

The subject of Neutrality, however, must receive careful attention.

Art. 3 of the Convention is the most important for our consideration.

ART. 3, CONVENTION OF 1907.

Belligerents are forbidden to:—

- (a) Erect on the territory of a neutral Power, a wireless telegraph station or any apparatus for the purpose of communicating with the belligerent forces on land or sea.
- (b) Use any installation of this kind established by them for purely military purposes on the territory of a neutral Power before the war, and not previously opened for the service of public messages.

The above, however, must be studied in conjunction with Arts. 8 and 9, which apply to private telegraph services.

Art. 8 says, "A neutral Power is not bound to forbid or restrict the use on behalf of belligerents of telegraph or telephone cables, or of wireless telegraph apparatus, belonging to it or to Companies or to private individuals."

Art. 9 provides that "A neutral Power must apply impartially to the belligerents every restriction or prohibition which it may enact to matters referred to in Art. 8.

The neutral Power shall see that the above obligation is observed by Companies or private owners of telegraph or telephone cables or wireless telegraphy apparatus.

A violation of neutrality on the part of Belligerents is provided for in Art. 10, which states: -

"The fact of a neutral Power resisting, even by force, attempts to violate its neutrality cannot be regarded as a hostile act."

It will be seen from the above that while a neutral State must prevent the establishment of an official system of collecting and transmitting information by a belligerent, it need not prevent the supplying of information by private individuals residing there.

The lesson from all this, for an Intelligence Officer, is to get acquainted with "the private individuals residing there," either male, or female, as the case may be, preferably the latter, and apply again for the time being the old saying, "All is fair in love and war," if you don't get caught.

Only under the above circumstances would the study of "Sieges" be of interest, and therefore this paper will end with "Neutrality."

The following is a partial list of books of value to a student of the subject:—

Instructions for the Government of the Armies of the United States in the Field, 1863.

Brenets, "La France et l'Allemagne devant le Droit International."

Geneva Convention.—Geneva Conference, 1906.

Hague Conference, 1899. Hague Rules, 1907.

Kriegsbrauch.—By German General Staff, 1902.

Official Account of Franco-Prussian War.—By Major F. C. H. Clarke, London, 74-84.

Moore's Digest.—By J. B. Moore, Washington.

Oppenheim.—International Law—2 vols., 95-96.

Land Warfare.—By Col. J. E. Edmonds, C.B., R.E., and L. Oppenheim, LL.D., 1912.

For unwritten laws, read Maxwell's Wellington, and Stonewall Jackson, by Col. Henderson.

For Sieges, "The Defense of Kars, by Col. Attwell Lake.

MEMORANDUM.**"THE RELATION OF THE CORPS OF GUIDES TO
THE CAVALRY BRANCH, WITH SOME NOTES
ON CAVALRY TRAINING IN EUROPE."**

BY

LIEUT. W. B. SIFTON, C. OF G.

Gentlemen:—

I have been asked to prepare and read to you a short memorandum on the subject of the relation of the Corps of Guides to the Cavalry Branch. I have incorporated with this some notes on Cavalry training as it is practiced in Europe, and a few examples to illustrate the more important features.

This is, as you will all grant, a most difficult and complicated subject, and it is with the greatest trepidation that I submit my views to this meeting. This is especially the case, as in some of its aspects the subject is a controversial one. If anyone differs with my opinions, I shall welcome discussion. They are based on some months careful study each summer for the past four years in the Cavalry Schools of England, France, Belgium, Holland, Germany, and Austria, and also upon my notes of many personal conversations and discussions with the instructing officers of these Schools, and with other prominent Cavalry Officers of both the Imperial and the various foreign armies. I have tried merely to put in concrete form the result of my experience in so far as that experience applies to the work of our Corps, in the hope that it may prove of some value to those who, not being personally familiar with the conditions in the mounted branches of the European armies, are still anxious to apply to our own organization in Canada, lessons learned from them.

In studying the question of the duties of the Corps of Guides and their relation to the Cavalry Branch, I have come to the conclusion, and am most firmly convinced, that our Corps cannot hope to reach that ideal of usefulness and efficiency to which we all aspire, unless the following co-ordinate prerequisites are first complied with, namely:—

FIRST. Every Guides' Officer must know thoroughly the system of training, the efficiency attained under that training, the horses used and their condition, stamina and ability, and the methods employed both for reconnaissance and for more important operations by the Cavalry which it is his duty and privilege to assist.

SECOND. And I should like to particularly emphasize this point, as it is only too apt to be overlooked, owing to our system of training against skeleton armies, tactical exercises against forces with which the Guides' Officer is personally familiar, and other make-believers which conditions in this country render practically unavoidable.

Secondly, I repeat—every Guides' Officer should understand just as thoroughly the system, efficiency, horses and methods of the mounted forces against which he is operating.

This second prerequisite is of special importance in any case where he should have occasion to take the field against forces organized on a different system to that which we ourselves employ and to which we are accustomed.

For example, in our army it is well known that we are not trained to use the massed cavalry charge. We consider it out of date, inefficient and suicidal.* But the Germans, who have admittedly developed the theory and practice of "shock tactics" to a point more nearly perfect than any other people, still retain it as an important, integral and often used part of their system. To quote the words of clause 585 of their own Field Service Regulations,—

"The result of a cavalry charge depends upon the boldness with which it is led, the selection of the opportune moment, the keenness of the men, the condition of the horses, and the strength and formation of the force employed."

Again in clause 586 of the same book of instructions we find the following statement:—

"Against cavalry, everything depends upon the vigor and concentration of the attack." What therefore would be the result of one of our Guides' Officers acting, for instance, against

*Page 129, Field Service Regulations, Part 1.

Page 179, English Translation Field Service, Regulations of the German Army, Clause 585.

German Troops, but unfamiliar with German tactics, neglecting to report, after a reconnaissance, the existence of a piece of ground on the flank of a position, where the opposing army could use the massed charge, and thus might inflict great damage on his forces? It might result in the open country being left uncovered, in advantage of this being taken by the enemy and great damage done.

At the present time there are two, and only two, great and conflicting theories and systems of cavalry training and tactics in force in the great armies of Europe. I join these terms, "cavalry," training and "tactics" advisedly, because they stand for what in the nature of things must be co-relative, and must always be considered together. It is indeed axiomatic to say that a system of cavalry training is only useful in so far as it produces a force which is efficient under that system of tactics which is employed in active service. It is not, and never can be and end in itself, but only a means to an end. On the other hand, a system of tactics can only be successfully put in practice where the forces with which it is carried out have been trained in such a way as to have become adept in the necessary operations. I think this point may very well be borne in mind, for, especially in the case of junior officers, it is very apt not to be fully understood.

The two systems above referred to may be most conveniently described as the French and the German Schools. I shall attempt to sketch in a few words the essential features of both, and also point out their salient differences.

FRENCH SCHOOL.

According to Commandant Feline, late of the famous Cavalry School of Saumur, and a recognized French authority, "Horses are given to soldiers in order that they may move more quickly and with less effort, and in order that they may operate at a greater distance from their base." He, in common with all other great authorities of the French School, believes firmly that ten men in the right place at the right time, are worth fifty men in the wrong place or late at the right place. In other words, cavalry is used in the French Army for mobility. This idea, mobility, is the basic one of the whole French Military organization to-day. They

no longer depend upon infantry or field artillery except for the heaviest engagements, for defensive operations, for garrison duty and for guarding lines of communication.

Followed to its logical ends, we find that this steadfast adherence to the idea of mobility in the mounted services has resulted as follows:—

French Cavalry,—and by that term I mean to include Horse Artillery—both officers and men, are all trained to go across country,—over, not around obstacles. They take a straight line from one place to another. The cardinal sin for them is to make a detour. When a Cavalry force at a point "A" is ordered to proceed to a point "B", they go there as nearly as possible as the crow flies. In this connection, it is interesting to note that Officers of those armies trained under the French system have, on many occasions in international Military competitions, demonstrated their superiority over all comers in riding over obstacles. I have repeatedly seen French, Belgian, Italian, and Dutch Officers, decisively defeat representatives of the German, Russian, American and English Services (1). There is only one reason for this, and that is, that they make a serious business of such work. Not only every officer, but also every man is compelled to learn how to ride over anything that might be met in the field, and the horses are trained in the same way.

I should like to say a few words here on the subject of military jumping. I quite realize that there are conflicting opinions held by many of us on this subject, but I am going to tell you of a conversation which very clearly explains the point of view in this regard of the continental officer trained under the French System.

Some years ago there was a controversy carried on in the London papers at the time of the holding of the International Horse Show, on the question of the horsemanship of the English Officers, and the advisability of allowing them to continue to compete against the foreigners in the face of often repeated, and at that time, ignominious, defeat. Many of the English Officers, more especially the senior ones, were strongly against allowing representatives of their service to engage in the competitions under the conditions which were

(1) This is School training, not field training.

met with at the Olympia. Their stock arguments were that the English Cavalry Officers were, as a class, excellent horsemen; that they played first class polo; that they were good men after hounds and across country, etc.; that the artificial conditions of the narrow, circumscribed, indoor show-ring, the masses of flowers and shrubbery, the outlandish color of the jumps, the judges and officials standing in the ring, the band playing, the thousands of people clapping, etc., were such as to disconcert any horse or rider, make him lose his head and get excited, and result in bad mistakes being made, which would not have been made in the field; also that the obstacles over which competitors in the military classes at the Olympia were required to ride were never met with in the field, and were suitable only for competitions between horses and men specially trained in the school for such work; that such training was of no practical value to a cavalry officer; that their officers were too busy with what they considered to be the more important things of their profession to afford the time necessary for such special training; that even if they had the time, they didn't have the right kind of horses; and finally, all these facts being true, that they should not be allowed to make fools of themselves when the competition was so unfair, and the result was a foregone conclusion.

I happened one day, in the Officer's box at the Olympia, to hear an English Staff Officer, who had just witnessed a number of very discreditable performances by various officers of the English cavalry, express the above opinions to the Marquis Calabrine, at that time Master-of-Horse to the King of Italy, and in charge of that famous team of Italian Officers which caused such a sensation by its consistent success. I shall give you the Marquis's reply as nearly as possible in his own words:

"Sir," he said, "we, in the Italian Army, try to train our officers and men so that they can, as far as possible, surmount any obstacle which they may meet in the field, and under any conditions in which they may find themselves. This training we must of course do either in the school or on the exercise-ground. I grant you, therefore, that these competitions are only suitable for men and horses specially trained in this particular branch of cavalry work in the school

or on the exercise-ground, and that without such training it is hopeless to ask them to perform such feats. But I qualify this with the belief that training of this kind is essential in order to produce thoroughly efficient cavalymen in the field. On the other hand, I must take exception to your claim that the conditions here are so artificial as to be a much greater handicap to a horse and rider than anything he would be apt to meet in the open in active service. In my opinion, any officer acting as a galloper during an engagement, or any cavalry force under fire, would be under much more disconcerting conditions, and any training either horses or men can get in show-rings such as this is of immense value in teaching them both to keep their heads under adverse circumstances. Also, I think there is no doubt whatever, that any horse or rider, accustomed to going on about their business in the show-ring, paying no attention to the noise and the other adverse conditions which you mention as being present here, are much less apt to be startled and lose their heads under fire, or under any of the hundred and one other disconcerting conditions which they are only too apt to encounter in the field than a horse or rider not having had such experience. Here in the competitions at the Olympia, and in the other great show-rings, such as those at Paris, Brussels, Milan and New York, in order to make a creditable performance, an officer must not only display good horsemanship, he must also show every other quality which is of essential use in the field. Every moment he is called upon to use nerve, absolute control of mind and body, quick-wit and judgment in the meeting of unforeseen difficulties, etc. (2) If these qualities are not already developed, riding over this course under these conditions is the place for him to get them."

"To return to the question of the obstacles themselves, because the varieties of obstacles to be met with in various countries are practically infinite, we build typical examples of the main classes, make them as different as possible, and train our forces over them. We try not to allow a horse or man either to school over a number of similar obstacles in succession, or over the identical course too often. The result is that both horse and man learn to gauge each obstacle by itself when they come to it, no matter whether they have

(2.) It should be possible to foresee the difficulties of a show-ring.

ever seen one like it before or not. They do not get over an obstacle successfully because they have seen it before, been trained over it,(3) and have learned how to negotiate it, but because they have, by long experience, learned that take-off, landing, height, and width are the only essentials of an obstacle. Color, appearance, etc., do not bother them. Up to a certain height and width they will get over anything you care to face them at, whether they have ever seen one like it before or not, and no matter how startling its color or appearance may be."

"Look at those jumps in the ring," he continued, "They comprise typical examples of every great class of obstacles which is to be found in the field in any part of the world, and which it is possible for the ordinary horse to get over. Any good Irish horse can jump that bank, for he and his ancestors have been jumping banks like that one for a hundred years;(4) you never see the horses from the West Coast of France make a fault at the stone wall, because in Brittany and the other Provinces from there to the Pyrenees, you find nothing but stone walls, and one of them about every hundred yards; the Canadian and American horses pop over the double post and rails with ease, for that is the ordinary obstacle to be met with in their own country; and I have yet to see an English horse in trouble at the hedge and ditch, a jump which all English horses know all about from infancy. No matter where a competitor comes from, he will find in this ring at least one jump which reminds him of home. But he will also find many which he has never seen at home, and which, unless he is specially trained, he will find it most difficult, if not absolutely impossible, to negotiate successfully. Here we have, in one course and in bewildering succession, the hardest obstacles from all countries brought together in one ring. For this reason, any horse and rider which can make a good performance over this course can cross any country in the world with comparative ease. If you travel and look for them you will find that examples of the same kinds of jumps as these are to be found in many parts of the world. We try to train our cavalry to be successful campaigners, not only in our own, but in any country. But you English

(3.) The whole point would seem to be that horses should be trained over such obstacles.

(4.) This is just it, the horse has learned how to negotiate it.

men, with your claims that your officers and men are good riders to hounds in England. Don't you realize that all countries are not laid out in fields divided only by hedges, ditches, stone-walls, or banks less than four feet high? My God! Don't you ever expect to campaign anywhere but in England?"

As pointed out by the Marquis Calabrini, the result of this training so often derisively referred to by members of defeated teams, and by their apologists as "Circus" riding--is seen in the field. The mobility of the French, and more especially of the Belgian Cavalry and Horse Artillery is truly remarkable; for it must be pointed out that although the French originated the system and are its chief exponents, and although the Italians have brought some branches (more especially as regards the training of the Officers), to the highest state of perfection, still, in their comparatively small army, the Belgians have brought their officers and men considered as a unit to a standard of average training and efficiency under the French System, even higher than that obtained by either the French themselves or the Italians.

As an example, I cannot do better than describe a cavalry operation, which I was once fortunate enough to witness. I hope you will forgive a rather lengthy departure from my immediate subject, as it is necessary to describe the ground more or less in detail in order that you may appreciate to the full what I saw.

Some two years ago, just at the time of the Morocco trouble, I happened to be visiting some officers of the First Belgian Lancers at their barracks at Namur. Namur, as those of you who are familiar with European military geography know, is looked upon by many as the key to the Franco-German Frontier. It lies at the confluence of the two rivers, the Meuse and the Sambre, in the apex of that triangular piece of Belgian territory which runs up between Germany and France. It is only about 125 miles in a straight line from Paris and commands the main road to that City. The Belgians believe (and the Belgian Officers openly state the belief), that, on account of the location of this piece of territory, Belgium could never avoid being drawn into any conflict which might occur between France and Germany, because it would be practically impossible for those two

nations to engage in a campaign along their mutual border to the south, and still respect the neutrality and territorial integrity of this particular part of Belgium.

For these reasons Namur is very strongly fortified and garrisoned. The fortifications consist of a line of strongly entrenched positions some 14 in number lying in a circle about 12 miles in diameter surrounding the old town. Each position is on an elevated point and is garrisoned by about 1,500 men, mostly infantry, heavy artillery and engineers—defended, in other words, by the comparatively immobile section of the garrison. In reserve, in the town itself, ready to proceed to and support any one of the positions which should happen to be particularly in need of strengthening, is the more mobile division of the garrison, consisting of five regiments of cavalry, each of a full war strength of 1,000 men, and eight batteries of horse artillery.

The surrounding country is very broken and hilly, and cut up with ditches, stone walls, hedges, dikes, etc. They have also deliberately left each position semi-isolated with no good straight road from it to the town or to the other positions. Thus in case one of them should be taken by an attacking force, the way would not be wide open for them to advance at once into the town without hindrance, or to easily attack the other positions in flank or rear.

At the time I speak of, while the tension was at its highest, the garrison was of course being put through every species of training. One morning orders were received by the First Lancers to proceed at once to one of the outlying redoubts. It was about six miles away as the crow flies, and about ten miles by the narrow winding road. I was mounted by one of the officers, and going with them was astonished to see the head of the column leave the road after having gone about two miles, and cut straight across country at a gallop. Mounted on a big bay Irish hunter, the Colonel, without pause or detour, and riding at a good hunting gallop, headed straight for the redoubt and his men followed, trying as best they could to keep some semblance of their original formation of column of fours (5). Up and down hill they went, over ditches, stone walls, and hedges. They reached their destina-

(5.) This operation had no doubt been frequently practised by the Regt. No. jumps here.

tion, having been just half an hour in covering six miles, and having left behind fallen, or refusing horses, or otherwise delayed, only 26 men. Going at the same pace, it would have taken at least 50 minutes had they stuck to the road. The minimum saving in time, therefore, was twenty minutes, and in many cases of emergency, the arrival of such reinforcements twenty minutes earlier means success instead of failure.

Gentlemen, I can do no more than describe this, a feat of which I was an eye witness. I leave you to draw your own conclusions as to what such efficiency means. It shows to what perfection cavalry training has already been carried in one of the foreign services, a standard which we ourselves will sometime, I hope, equal if not surpass, and one with which we should all at the present time at least be familiar.

THE GERMAN SCHOOL.

In contradiction to the French and Belgians, we find the Germans. Their system is based almost entirely on the principle of the irresistibility of mass plus velocity, or, as we are accustomed to call it, "shock tactics." In other words, although they recognize the use of cavalry as a screen, and for reconnaissance, still, backed up by the weight of their infantry and artillery, they depend upon it to win their pitched battles by heavy massed charges.

As the French system results in the points above noted, so the German results in the following:—

1. As, in order to use shock tactics, the formation must be kept intact, and as this cannot be done in a broken or rough country unless you stick to the roads; practically no German Officer or man is even a fair rider across country or over obstacles; negotiating obstacles is one of the things which they are never trained to do.

2. They train the horse and not the man. Lieutenant Sommerhof, a well-known German Expert, stated to me that he did not care whether they gave him the men of his own regiment or raw recruits, so long as he had the trained horses of his regiment, and two weeks in which to teach the recruits how to sit on their horses, drill, and use a revolver and sword. He says that the horses of his regiment, when moving in line, will keep their places, knee to knee, practically as well without direction from the rider as with it. In fact, I have

heard officers of a certain crack regiment now stationed at Potsdam, boast that the horses of their regiment, if put in line and started on a charge, would keep their places just as well with bags of sand tied to their backs as when ridden by trained men.

3. The Germans march, drill and manoeuvre in close formation. They practically never use anything else. In their manoeuvres they never by any chance leave the road except where the country is open, level, and not cut up with obstacles. They calculate on having every movement in the game of war planned beforehand, and therefore, in always lots of time and never finding it necessary to be in a hurry, or to cross country in order to save time, when there is a road which leads to the same place and which might be used.

Thus we see the essential points of difference between the French and German systems. It shows even in their uniforms and equipment. The French cavalry use light jack boots, with very thin calf tops. Such boots enable a rider to "get closer to his horse," as the expression is; in other words, to get a firmer grip on him and keep a better seat when jumping or crossing rough country. The Germans, on the other hand, wear enormously heavy old style top boots, with the tops made of stiff 3-8 inch sole leather, and coming well up above the knee. The only regiment left in the British Army which, to the best of my knowledge, uses such boots, are the "Blues." These boots are obviously designed to protect the riders legs from being crushed against horses or men on either side of him when moving in close formation. The same characteristics are also brought out in the patterns of the saddles used by the respective armies.

The difference in the system shows again in the remounts—a subject in which we are most interested. The Germans are very proud of their remounts and have won the charger classes at the Olympia for the past two years. They are practically all bred on the Government remount farms, or from Government Stallions. To do them justice, they are really a magnificent type of horse. They are practically all over 16 hands, with plenty of bone and substance, and at least half-bred, while more of them are three-quarter bred or better, and are of remarkably good disposition. They have in the show ring apparently no fault. But go out to the

Kaiser-manoeuvres and see them in action. There the fact that your German Cavalry horse has been bred especially for the German System of tactics, and his radical unfitness for anything else, becomes immediately noticeable.

He has two great faults:

First.—He is what is known amongst horsemen in this country as a "daisy-clipper," a horse who does not lift his feet high enough above the ground. On account of this, if you take him off the road into rough country, he is very apt to stumble.

Second.—He cannot jump, and I believe it is a fact that he resembles the Kentucky saddle-horse in that, as a rule, he cannot even be taught to jump.

Both these faults are obviously due to the German System. If the Germans were accustomed to riding cross-country, they would soon stop breeding stumblers and horses that cannot negotiate an ordinary obstacle.

The French and the other nations using the French System have an entirely different type of remount. They use a type of horse very similar to that used by the Royal Canadian Dragoons, but with a good deal more blood. They can jump, and they have no "daisy-clippers." They won't have them at any price. Their horses are just as good for shock tactics and close formations as the German, although they are not so thoroughly trained in that respect, excepting that they are quite a bit lighter. On the other hand they are specially suited for the French System of tactics.

There is another point that I would like to mention while discussing cavalry horses, and that is the problem of replacing the horses killed, injured, or otherwise placed hors-de-combat during a campaign. I believe that the average length of time in which a horse is of use in active service is about six weeks. Now, both the French and Germans have made provision for a fresh supply of horses in case of war, but I want to make one point clear. At the end of six weeks of active service, the French and German cavalry would be on new horses, (6) on green, untrained remounts, horses which, in the heat of the campaign, they would have neither the

(6.) The case is overstated.

time nor the opportunity to train. The French are trained in horsemanship and how to make any horse do what the rider wishes. The Germans are trained to go through a series of manoeuvres in close formation on schooled horses. Would the remounts stay in line in a charge, while the rider used both hands for sword and revolver? Which service would be the more efficient on the fresh horses. Do you think it wise to train such a large service as the German Cavalry on the assumption that any campaign they may be called upon to enter will only last a few weeks, and with the certainty that should such a campaign last longer than that, the carrying out of their system of tactics would be seriously hampered by the lack of trained horses and of men capable of going through the necessary operations efficiently on untrained horses? I leave it to you, gentlemen, to make up your own minds.

Such are the systems of cavalry training known as the French and German Schools. They stand at opposite ends of the line, and all the armies of the world to-day may be classed under one or the other of them, or in between. The Belgian, Italians, and Hollanders stick closely to the French School. The Russians are trained under the German System. The Austrians, the English, and the Americans have a queer hybrid of both. We, in this country, incline to the French System, and rightly so. Our forces are maintained essentially for purposes of defence, and, owing to the nature of our country, with its narrow, bad roads—and even then at infrequent intervals, the roughness of the country itself, and the size of the obstacles ordinarily met with, any other system would be almost impracticable.

Now, to return to the points in which we, as Guides' Officers, are more personally interested. As I stated earlier, in order for us to attain to the highest degree of usefulness to our commanding officers and to the cavalry forces which we are to assist, we must not only know, but bear constantly in mind the methods, the efficiency, and the limitations of the forces both for and against which we are acting. In conclusion I would like to point out that in our reconnaissances we must always, if acting against forces who habitually use the German method, pay special attention to the roads, and warn our commanders of open territory where mass formations could be used against us. We must also learn

to gauge country and be able to tell at a glance whether either our own or the enemies' Cavalry could negotiate it successfully cross-country, and whether our own men should or should not stick to the road.

I should like to state also that, in my humble opinion, the postulates which I have quoted as laid down by the Marquis Cakabrinì with regard to Cavalry training in the Italian Army, apply with equal force to the Canadian, and may well be remembered with profit by the Corps of Guides.

REMARKS ON LT. SIFTON'S LECTURE AT CORPS OF GUIDES' MEETING, 28TH FEB., 1913.

BY

LT.-COL. GEORGE PALEY.

However, to turn to the subject of Lieut. Sifton's paper; the lecturer has referred to the ideas which obtain in Europe to-day, regarding the employment of cavalry in shock tactics and the two schools of thought (the French and the German) with regard to how the rank and file and the horses can be trained to fulfill requirements. He has laid considerable stress upon the value of schooling men and horses in high jumping and in what he describes as circus jumping, and has quoted the views held in England and on the Continent regarding the comparative value of this form of training.

Now, although I think all will readily admit that anything which will cultivate a spirit of courage, dash, resource and good horsemanship is excellent training for any mounted officer, and will develop characteristics which we hope exist, even if dormant, in every British subject of the Empire, and although we admire those who, like the lecturer and his brothers, take every opportunity of performing daring feats of horsemanship, yet it is still a matter of argument to what extent this nature of training benefits a horse and renders it better fitted for the work it would have to perform.

Although Lieut. Sifton has laid considerable stress on the value of the system at Saumur, yet I am sure he will readily admit that high jumping forms a very small part of the individual, as opposed to the collective, training of either man or horse.

The lecturer makes a good point when he emphasizes the fact that the nature in which it is intended to employ the mounted branch of the service must govern the system of training.

He tells us that the Germans and French both believe in shock tactics and train their cavalry accordingly with this end in view.

In the original draft of his paper he rather infers that the idea of employing shock tactics by large bodies of cavalry is not in favour with the British Cavalry, but this is contrary to the fact, as the many extracts which I will refer to afterwards will show. It is only a question with the British whether greater results cannot oftener be obtained by fire or by a combination of fire and shock action. The Germans are inclining to the British view, whilst the French, although they admit fire action may occasionally be advantageous, do not practice musketry to any extent; however, there is an idea that they may employ cyclists or infantry in carts to give them the benefit of fire support.

So far as training goes, the British system is so thorough that it does not place a cavalry recruit in the ranks under eight months progressive training, by the end of which period he has completed his musketry course, is trained to use his weapons (the lance or sword) at full gallop, and has learnt to ride over fences and to ride all kinds of horses. As soon as he has been placed in the ranks he is given a remount to break and is afforded opportunities for taking his horse out into the country to school him and even to follow hounds.

As regards what the lecturer has said about the British being trained only to negotiate the ordinary hunting fences met with in England, it is a fact that England is more enclosed than any other country in Europe, Italy possibly excepted, and that cavalry which could get across country in England could do so anywhere in Europe.

For instance, the country on the Franco-German frontier has practically no fences, although if you get into Belgium it is different.

In any case it is doubtful to what extent cavalry in masses could negotiate fences at all: first, because on service the weight carried by a troop horse is 17 or 18 stone. Horses have to travel long distances day after day, and getting less food and less attention fall away in condition. It can, therefore, scarcely be anticipated that an enclosed area would be selected for shock tactics, but if this was the case, the cavalry employing fire action would have an undoubted advantage, always provided that protective patrols gave ample warning of the approach of the hostile cavalry.

Talking of the effect of shock action by cavalry, it is a curious fact that history records but few instances where any large bodies of opposing cavalry have met in a charge, because almost invariably one or other has turned to run before the encounter. Sir Evelyn Wood in selecting twelve historical instances of the achievements of cavalry, only includes one instance; that of Mars la Tour in 1870, where 3,000 cavalry on each side (French and German) met in a charge; every other instance was when cavalry have charged infantry or guns, in each case the cavalry having effected a surprise or being launched against broken troops. Under such circumstances the British are taught that shock tactics may be employed to advantage, the moral effect being the principle value gained, but the view is still maintained that fire, if opened unexpectedly at short range, upon an unprepared body of troops, may readily produce a state of demoralization which may be favourable for shock tactics.

When, however, we pass from Europe to Canada, we find the conditions so totally different that we are compelled to adapt our training to circumstances, for it is well at once to recognize that cavalry, unlike infantry or artillery, cannot be improvised within one year of the opening of any campaign. This fact is most intimately related to the peculiar characteristic of cavalry trained man, trained horse, the former to use his weapons while riding at top speed, the latter to carry a heavy load across country at a gallop.

After the disastrous campaign in Russia in 1812, when Napoleon lost 450,000 men and 190,000 horses, Napoleon never again was able to raise cavalry, and in his 1813 campaign

had only raised some 2,000 cavalry by the spring, by May he had got 10,000 but they were poorly mounted and trained, and incapable of charging except in column.

Under conditions obtaining in Canada, partly due to the want of horses and horsemen, and partly due to the character of the country, we have to depend upon mounted rifles. The characteristic of mounted rifles is the power to move with rapidity and to cover long distances in a comparatively short time. This enables them to combine fire and manoeuvre to the best advantage. They are not trained to shock tactics, but depend upon the rifle, the power of which they are enabled to develop to the utmost by their ability to seize favourable fire positions rapidly.

It will certainly be a disadvantage not to be able to complete the demoralization caused in the ranks of the enemy by a charge, if surprise is effected, but we are all creatures of circumstance, and taking lessons from the civil war across the border, we find that even in the action of Brandy Station, between the massed cavalries of Stuart and Pleasanton in 1863, after three years of war, where shock tactics were employed, the greatest distance over which any charge was delivered was restricted by the ground to 600 to 800 yards, and in every case the charges were made in column, not line.

Therefore, since it is undoubtedly essential that our mounted troops should have some weapon to use at close quarters, it would probably be better to give them bayonets than swords.

In conclusion, I am entirely in agreement with the lecturer in thinking that the Guides should study the capabilities of the horse, for he is entirely dependent upon his horse in carrying out his duties. I also agree that it will be particularly necessary that Guides should be well mounted and confident that they can surmount any obstacle, physical or moral, with which they may be faced. It is for this reason that I have always advocated recruiting officers and men from amongst those who are good horsemen, who own and ride their own horses. If a man does not know what his horse is capable of after 10, 20, or 30 miles, he is in the position of a sportsman who goes out hunting with a rifle, of which the sights have been damaged. He knows that he has a powerful weapon, but is quite at a loss to know how to use it.

SUSTENANCE ON THE MARCH AND IN THE FIELD.

BY

CAPT. C. A. PALMER, Corps of Guides.

The object of this paper is not an historical review of foods used by armies, or to discuss the feeding of an army in the field, but a consideration of the best means of sustenance, whether in the field or on the march, for men who have to perform duties likely to be carried out by the Corps of Guides and kindred officers.

Particular stress will also be given to the study of foods and means of sustenance of men who may be called upon suddenly to perform hardship, for which their previous training and mode of living makes them ill-prepared.

The writer's analysis of the subject requires a consideration of:—

- (a) The build or physique of the man.
- (b) The country he is operating in.
- (c) The time of the year—the warm or cold season.
- (d) The diagnosis of the causes of the feelings of discomfort.

Sustenance, to be all that it implies, must furnish the individual with the maximum amount of energy and endurance.

Because of the fact that "what is one man's food is another man's poison," strict rules as to what one person should eat to gain greatest efficiency, cannot be laid down, but general information can be given which will enable the individual to gain some idea as to what choice to make.

A guide's work is of such a nature, that he must at all times keep himself in the pink of condition; his most vital need is not great strength but great endurance. That strength and endurance are not identical is only partially recognized. The strength of a muscle is measured by the utmost force that it can exert once; its endurance by the number of times it can repeat a given exertion within its strength. This endurance may be expressed in terms of loss of strength. It is related to fatigue. Fatigue applies to brain, spinal chord,

and nervous system, as well as to muscle. Fatigue in muscle will fatigue all the body, as the fatigue acids, now known as carbonic and lactic, go directly to the brain and vice versa. Our men on duty are engaged in what might be termed a muscular vocation, and the question of endurance is of vital importance.

Efficiency should be the great aim. This condition of efficiency is most affected by four factors,—worry, sleep, exercise, diet. To the latter factor we will give most attention, as the others are usually beyond our control. Worry is to be expected, lack of sleep looked for, and exercise the rule of the day and often the night as well. The highest state of physical efficiency therefore should be the guide's password, and in proper diet is found the secret of retaining and holding this condition.

Dietetic discoveries in the past ten years have added much to our knowledge of food values, so that today we are compelled to believe that a high state of mental efficiency and physical endurance may be attained on a diet containing little flesh food. Several studies along this line have been made, the most remarkable results being secured by Prof. Fisher, of Yale University. The experiments consisted of endurance tests made on forty-nine persons, representing two contrasted types of dietetic habits.

There were three groups; first, athletes accustomed to a high protein and full flesh dietary; second, athletes accustomed to a low protein and non-flesh dietary; (protein being that substance used to build muscle tissue); then third, sedentary persons accustomed to a low protein and non-flesh dietary.

There were three tests: the first, arm-holding; second, deep-knee-bending; third, leg-raising.

The first comparison,—for arm-holding—showed a great superiority on the side of the flesh abstainers. Even the maximum record of the flesh eaters was barely more than half the average for the flesh abstainers. Only two of the flesh eaters succeeded in holding their arms out over a quarter of an hour, but fifteen of the thirty-two abstainers exceeded the limit. Of these, nine exceeded an hour, four exceeded two hours, and one exceeded three hours. In respect to experiment two—deep-knee-bending. If we take the number

325 for reference, we find that of the flesh eaters only three surpassed it; only one of the flesh eaters reached 1,000 as against six of the twenty-one abstainers. None of the former surpassed 2,000 as against two of the latter.

In respect to leg-raising, the record shows little difference. None of the contestants reached their absolute limit. The highest record for the abstainers is a thousand times. That this was not near the limit was evidenced by the repetition of the performance on each of several successive days.

The flesh-eater who reached 1,302 did so after the thousand mark had already been set for him, and with the express intention of exceeding it. It was evident from his fatigue at the end that he could not have repeated his performance on the next day as did his rival. Both these men had made a specialty of developing their abdominal muscles (those used in leg-raising). Only one of the sedentary group of abstainers took the leg-raising tests. His record is far below that of the flesh-eating athletes, being 74, against 279.

SOME RECORDS FROM GENERAL COMPARISONS.

	Arm-holding. record.	Deep-knee bending.	Leg-raising.
Flesh-eaters—			
Athletes	10 min. avg.	383 times avg.	279 times avg.
Flesh-abstainers—			
Athletes	39 " "	927 " "	288 " "
*Flesh-abstainers—			
Sedentary	64 " "	535 " "	74 " "

*Discussing the record of 64 minutes in this arm holding test, Prof. Fisher says, "It can scarcely be supposed that the Sedentary group has actually greater endurance than the Athletes." He attributes this record to the fact that the records of the others were known to this group before they took their test, thus giving the Sedentary group the greatest spur in the arm competition, which proved especially needful in this painful test.

SELECTED COMPARISONS GIVING EVERY BENEFIT OF THE DOUBT TO THE FLESH EATERS.

	Arm-Holding.	Deep-knee- bending.
Flesh-eaters—		
Athletes	16 min. avg. rec.	576 times, avg. rec.
Flesh-abstainers—		
Athletes	31 " " "	933 " " "
Flesh-abstainers—		
Sedentary	62 " " "	535 " " "

"The tests prove that the Flesh-eaters work nearer to their limit than the Flesh-abstainers, and it is certain that a larger proportion of flesh-eaters actually reached their limit than of the abstainers. Of the 15 flesh-eaters who took the arm test, three reached their limit; of the 32 abstainers who took the same test only four reached their limit. Again of the nine flesh-eaters who took the deep-knee-bending tests, three reached their limit, and of the 21 abstainers who took the deep-knee-bending tests none reached their limit."

In summing up after numerous other tests in which the flesh-abstainers showed superior endurance in every way, Dr. Fisher states that "It seems reasonable, therefore, to attribute the difference in endurance between the flesh-eaters and abstainers, entirely to the difference in their diet."

Prof. Elmer Berry, of Springfield College, under whom I had the pleasure of studying several years, undertook to experiment in order to determine if Dr. Fisher was justified in his conclusions. His experiments covered a period of several months, the subjects being men who were studying for the Physical Education profession.

The first test was one of endurance, being two-mile run, with results as follows:—

GROUP I.	No. of Men.	Avg. Time.	Time Diff.
Normal Diet, 1st Test	6	14 min. 5-3 4 sec.	} 58 sec.
Low Protein— 2nd Test	6	13 min. 7-3 5 sec.	
High Protein— 3rd Test	6	13 min. 18-2 5 sec.	} 10-4 5 sec.

Results favoured the Low Protein diet.

GROUP II.

In this Group the Low Protein eaters covered the distance of two miles in 12 min. 27-1|5 sec.—The High Protein eaters in 12 min. 55-3|5 sec. The time being 28-2|5 seconds ahead of the flesh or high-protein eaters. Results again favouring the low protein group.

Prof. Berry sums up his experiments in part as follows:—

“I.—Bodily strength is not affected by high or low protein diets.

“II.—Endurance seems to be increased by a low protein diet.

“III.—Weight is not altered by a high or low protein diet, unless the individual is already over-weight, in which case a low-protein diet tends to reduce the weight.

“IV.—Clinical evidence indicates a greatly improved condition of general health in middle-aged men in sedentary occupations, on a low-protein diet.

“V.—The diet giving the greatest bodily efficiency for the average man would be one moderately low in protein.”

These results are no doubt disturbing to many who still cling to the flesh eating regime, and love “the flesh-pots of Egypt,” but as they were the work of two able dieticians, they must carry considerable weight, and force a change of mind as to the full value of flesh as a food, when a high state of physical endurance is sought for.

THE BUILD OR PHYSIQUE OF THE MAN.

While it is not yet possible to prescribe a diet which will suit absolutely every need of one particular person, any more than it is possible to make a last from which a boot can be turned off which would fit to perfection the foot of every man in an army, we are, however, able to measure to some extent the requirements of some types of individuals. We know that the tall, thin, wiry, active man requires more food than the short, fat, individual. The former having much greater surface for radiation and possessing more tissue of a particular kind requiring a greater quantity of fuel.

Hence more foods as carbohydrates and fats are necessary in order to furnish the needed energy and supply the bodily heat.

The short, fat individual, on the other hand, will not exert the same amount of energy and so will not call for the same amount of energy-producing foods. Should our short, stout type be called upon to go through severe exertion, his larger quantity of stored-up energy in the form of fatty tissue

will be called into use, and he will be enabled to perform the work on much less food than his tall, thin comrade in arms, who does not carry a "bread basket" beneath his serge.

While not able to lay down strict rules governing the diet of these types, we are, however, able to realize the necessity for more food for the individual expending the most energy. The two chief factors in estimating the quantity of food necessary are: Bodily weight and exercise.

THE COUNTRY HE IS OPERATING IN.

The character of the country in which he is operating will play a large part in food requirements. In mountainous countries, tremendous calls are made upon the body, and upon these calls will depend both the quality and quantity of food required for efficient work. A level country through which travelling is not difficult, will call for much less arduous labour and thus will result in a greatly lessened expenditure of energy and so call for less food.

In the Russo-Japanese war were two nations almost the opposite as regards diet. The Russians being fed very largely on a heavy meat diet, rich in proteins, while the Japanese Commisariat handed out rice and fish, and that in meagre quantities, compared to their antagonists. It was practically a war between the meat eater and the non-meat eater. The results are too well known to need mentioning here.

In the early Roman days, history records the hereculean tasks performed by the Roman troops; their arduous marches over mountain and through swollen and icy torrents, and this work on rations consisting of a handful of raw wheat per deim.

In Maxwell's Life of Wellington, Vol. I, page 122, writing of the advance on Poonah in the campaign in India, the author, quoting Wellington's despatches, writes: "The infantry will be here the day after to-morrow, and on the next day I shall move towards the Ghauts. We have marched 60 miles since yesterday morning."

The rations served through that portion of the country consisted very largely of grains and rice, meat being obtained only on rare occasions.

THE TIME OF THE YEAR.

On this will depend the quality and quantity of foods needed to give the necessary energy, strength and endurance. In our own climate during the winter months, our selection of foods must be far different to that of the summer, consisting very largely of fat meats and other foods rich in heat producing qualities.

Desiring the greatest state of efficiency in order that we may do superior work, consideration as to quality, quantity and kind of food is necessary. As to the quality it should be of the best obtainable. Let us make sure that the food is fresh, palatable, and nourishing, furnishing energy and possessing tissue building qualities without supplying too large an abundance of heat producing products, or too much waste matter. Let it be of a quality which will furnish those products necessary to supply all the needs of one striving for the condition of efficiency and minus those tending to cause difficulties in digestion and so leading to early fatigue and perhaps illness.

QUANTITY.

That many a man digs his grave with his teeth is a fact that cannot be gainsaid, and a fitting epitaph for the tombstones of many would be "Died of quick lunch." While the quantity may depend on the kind of work done and the physique of the individual, one may eat twice the amount that another eats and yet only be normal in his desires. But whatever the capacity, be it large or small, the secret of taking the right quantity lies in one's determining to leave the table with a feeling of satisfaction and the ability to still hold a little more, or the feeling that one is not "stuffed to the craw." When one's senses tell him he has had enough, he should then quit. This is the secret of quick and easy digestion and the path to efficient brain work soon after meal hours. One should endeavour to adjust a due relation between the income and the output. To neglect this means that the individual cannot long go without trouble appearing from some quarter. An even balance must be by some means maintained, if a healthy, efficient bodily state is to be ensured.

The quantity ingested will assuredly be dependent upon the length of time the food is held in the mouth. The more time given to thorough chewing or mastication, the less food

one will consume. The filling of the mouth followed by the gulping of several draughts of fluid, is one of the surest methods of leading to over-eating and impaired digestion. This method of eating is only too commonly indulged in, and leads to the path of inefficiency, weakness, disease and old age. The doing away entirely with liquid, is not advocated, but let it be taken before the meal, occasionally between the swallows of food, or at the close of the meal.

Thorough breaking up of the food particles in the mouth results in thorough insalivation, that is chewing the food for such a length of time that the bolus slips down without voluntary effort. This method when followed too an extreme stage is known as Fletcherism. Like many other 'isms it can no doubt be carried to excess. Let moderation be the rule.

Prolonged mastication calls for a generous flow of both buccal and salivary fluid in the mouth, and this assists in bringing the meal more rapidly to a close, as these fluids are reduced in quantity when the stomach signals that it has load enough. When thorough mastication is practised, one soon finds that the quantity of food taken at meals is much reduced. This reduction does not mean a reduction in strength, but just the reverse. The amount of food taken has been thoroughly prepared for the body's use, and much unnecessary expenditure of energy therefore saved as it takes energy to digest food as it does to lift a heavy weight. This smaller quantity of food thus taken, will furnish energy in much larger quantity than the heavier meal, carelessly and rapidly taken, because it is prepared for easy and rapid assimilation by the hungry tissues. Thorough mastication, therefore, is the secret of good digestion, good health, abundant energy and an efficient life.

KIND OF FOODS.

Here again we are confronted by the old adage, "What is one man's food is another's poison." Therefore, the writer would not attempt to lay down strict rules and regulations as to what one should or should not eat except in a general way.

Experiments mentioned on previous pages would lead us to believe that in a temperate climate the fleshless diet was

the best when a high state of efficiency and endurance is desired.

To many, to speak of a meatless dietary would be inclined to draw a reply of "Impossible to live without meat." The fact that three-quarters of the population of the earth are non-flesh eaters must force us to conclude otherwise.

Of what then should a man's diet consist of when flesh is excluded. Surely we are not puzzled to reply to that question when we realize that our own fair land flows with milk and honey.

A short list of foods furnishing abundance of nourishment might be suitably inserted here:—

Such nourishing fluids as milk, buttermilk, cocoa, vegetable soups, coffee.

VEGETABLES—Cereals—Potatoes, corn, beans, peas, wheat, rice. To this can be added twenty-five different choices with numberless combinations.

NUTS—as peanuts, walnuts, pecans, filberts. Ten varieties in all are familiar.

FRUITS—as apples, bananas, apricots, dates. Twenty more as valuable as these are available.

These with their almost numberless combinations offer a great variety. Why should one question getting along without flesh?

In the following list, to which twenty more could be added, we have foods containing large percentages of PROTEIN—that element or substance used by the body for building tissue or muscle—in which flesh foods are so rich.

Porter House Steak, 21%	Beans, 22%
Tenderloin Steak, 16%	Peas, 21%
Round Steak, 21%	Peanuts, 25%
Beef Brisket, 15%	Oatmeal, 16%
Haddock, 17%	Cheese (10 kinds) 15 to 29%
Sausage, 18%	Eggs, 13%

This short list is given to show the percentage of protein in foods commonly used, and goes to prove that we have little to fear from lack of proper nourishment while on a non-flesh diet.

DIAGNOSIS OF THE CAUSES OF THE FEELINGS OF DISCOMFORT.

A man is said to have perfect digestion when he is minus feelings which would indicate that he is possessed of a stomach. There are, of course, various kinds of discomfort, but we will consider only those resulting through error in diet or habits of eating and drinking.

The feeling of heaviness and the desire to sleep after a meal is usually the result of overeating, eating of foods difficult of digestion, or eating too hastily. This is a condition to be avoided by the man who desires to be in a high state of efficiency. Needless to say that of all men, a Guide should be the last man to go asleep on his job.

The incapacity for action and feeling of uneasiness, persisting for sometime after a meal, indicates digestive disturbance. This may be termed indigestion, and is rarely a disease in any sense of the word, but merely the natural result of error in diet. In most cases this condition is brought on not so much by the quality as by the quantity. More material is taken into the system than it can efficiently care for.

The common and frequent pain on the right or left side of the abdomen, which so often comes when one walks rapidly, or rides soon after a meal, is said to be due to an internal muscular cramp or an excess of fluid in one section of the digestive tract. This painful and so often annoying trouble may be relieved by pressing the closed fist against the spot and kneading the abdomen for a few minutes, thus forcing the fluid on its way.

In warm weather, one who overeats and drinks will suffer considerably from heat and perspire profusely. This will lead to much discomfort and very often to saddle scalds or blistering. On hot days the very lightest of foods should be taken, and fluid in small quantities only. Blistering between the toes during a ride or long march, is attributed to the consumption of too much salt in one's diet.

On a ride of 100 miles performed by the writer and his C. O. a few years ago, in hot weather, without any special preliminary training or preparation in the saddle, it was found that the usual heavy breakfast had to be dispensed with, as also a hearty mid-day meal, in order to ride in comfort and accomplish serious work.

The ability to think clearly, ride comfortably and do efficient work in the warm weather comes when one's dietary is composed of light foods, as milk, eggs, greens, vegetables and chocolate.

Profuse sweating, early fatigue, strained and sore muscles disappear, almost as soon as meat is cut from the diet.

At noon time on hot days, even though one has ridden a considerable distance, a cake of chocolate with a cup of water, coffee or tea, will prove all that one requires and will enable him to ride or march well into the evening without excessive hunger or fatigue. Discomfort may be almost done away with when one practises moderation in eating at these times.

The cool of the evening gives the opportunity of eating more heartily and of greater variety, but this meal will prove most beneficial when one has rested an hour or so after work. To indulge the appetite before getting well rested will result in a feeling of excessive fatigue and so prevent the work which is usually the summing up of a day's ride, and therefore of great importance, being efficiently done. A Guide possessing some knowledge of food values should have little difficulty in solving the problem of sustenance on the march or in the field.

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EDITOR'S NOTE.

In connection with the above paper, it may be interesting to note that in 1909 and 1910, two experimental marches were carried out under the orders of the Army Council with a view to furnishing material for the purpose of deciding on a satisfactory scale of Field Service Rations.

The Council approved that the proposed Field Service Ration should be of a 3 lb. weight and of 4,500 calories.

The parties consisted of 30 of all ranks in each case.

The total dead weight carried by the men was 54 lbs. on the first march and 42 lbs. on second march (no ammunition carried on second march).

The men were weighed, examined, and measured daily at 8 a.m.; circumference of chest, abdomen at navel, and of right calf being noted.

The average distance marched was $12\frac{1}{2}$ miles in 1909, and $14\frac{1}{2}$ miles in 1910, and the time occupied was, in each case, 12 days.

It was found in 1909 that the average energy value of the ration, viz.: 3,465 calories was insufficient, so it was increased in 1910 to 4,511 calories, which appears to be satisfactory.

Internal work was estimated at 3,000 calories per man per diem.

It may be noted that the personnel of the parties was not selected, all members being volunteers.

The scale of rations was varied and consisted of:—

Fresh or Corned Meat,	$\frac{3}{4}$ lb. to $1\frac{1}{2}$ lbs.
(Bread or	1 lb. to $1\frac{1}{2}$ lbs.)
(Biscuits,	$\frac{3}{4}$ lb. to 1 lb.)

Sugar, $2\frac{1}{4}$ oz. to $2\frac{1}{2}$ oz.; Jam, 5 oz.; Oatmeal, 2 to 4 oz.; Bacon, 2 to 6 oz.; Cheese, 2 to 4 oz.; Fresh Vegetables, 8 oz., or dried Peas, 2 oz., and dried Potatoes, 2 oz. in lieu; Mustard, $1\frac{1}{20}$ oz.; Tea, $2\frac{1}{4}$ oz.; Pickles, 1 oz.; Tobacco—free issue to those who desired it; Spirits, $2\frac{1}{2}$ oz. per man on recommendation of Principal Medical Officer.

The differences in weights of articles of food were due to the fact that on some occasions more meat and less biscuit was issued, and vice versa, in order to obtain a net result in protein, fat, carbohydrates and total energies.